

WEST Search History

Hide Items

Restore

Clear

Cancel

DATE: Monday, October 18, 2004

Hide?	Set Name	Query	Hit Count
	<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ</i>		
<input type="checkbox"/>	L2	L1 with gluconobacter	3
<input type="checkbox"/>	L1	cytochrome with oxidase	2373

END OF SEARCH HISTORY

Hit List

Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs
Generate OACS				

Search Results - Record(s) 1 through 3 of 3 returned.

☐ 1. Document ID: JP 2001169792 A

Using default format because multiple data bases are involved.

L2: Entry 1 of 3

File: JPAB

Jun 26, 2001

PUB-NO: JP02001169792A

DOCUMENT-IDENTIFIER: JP 2001169792 A

TITLE: CYTOCHROME C OXIDASE ENZYME COMPLEX

PUBN-DATE: June 26, 2001

INVENTOR-INFORMATION:

NAME

COUNTRY

ASAKURA, AKIRA

HOSHINO, TATSUO

SHINJO, MASAKO

INT-CL (IPC): C12 N 15/09; C12 N 1/21; C12 N 9/08; C12 P 7/60

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	RMAC	Draw D
------	-------	----------	-------	--------	----------------	------	-----------	--	--	--------	------	--------

☐ 2. Document ID: EP 1103603 A2

L2: Entry 2 of 3

File: EPAB

May 30, 2001

PUB-NO: EP001103603A2

DOCUMENT-IDENTIFIER: EP 1103603 A2

TITLE: Cytochrome c oxidase complex from Gluconobacter oxydans

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	RMAC	Draw D
------	-------	----------	-------	--------	----------------	------	-----------	--	--	--------	------	--------

☐ 3. Document ID: EP 1103603 A2, KR 2001051741 A, NO 200005799 A, AU 200071663 A, JP 2001169792 A, BR 200005443 A, CA 2324414 A1, CN 1303928 A

L2: Entry 3 of 3

File: DWPI

May 30, 2001

DERWENT-ACC-NO: 2001-357953

DERWENT-WEEK: 200172

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: New cytochrome c oxidase complex having cytochrome c oxidase activity from

Gluconobacter oxydans DSM 4025, useful in mediating electron transfer in respiratory chain or producing 2-keto-L-gulonic acid from L-sorbose or D-sorbitol

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	SMC	Draw D
------	-------	----------	-------	--------	----------------	------	-----------	--	--	--------	-----	--------

Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
-------	---------------------	-------	----------	-----------	---------------

Terms	Documents
L1 with gluconobacter	3

Display Format:

[Previous Page](#)

[Next Page](#)

[Go to Doc#](#)

,\$%^STN;Highlighton= ***;Highlightoff=*** ;

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1800EXS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 Jul 12 BEILSTEIN enhanced with new display and select options,
resulting in a closer connection to BABS
NEWS 4 AUG 02 IFIPAT/IFIUDB/IFICDB reloaded with new search and display
fields
NEWS 5 AUG 02 Caplus and CA patent records enhanced with European and Japan
Patent Office Classifications
NEWS 6 AUG 02 The Analysis Edition of STN Express with Discover!
(Version 7.01 for windows) now available
NEWS 7 AUG 27 BIOCOMMERCE: Changes and enhancements to content coverage
NEWS 8 AUG 27 BIOTECHABS/BIOTECHDS: Two new display fields added for legal
status data from INPADOC
NEWS 9 SEP 01 INPADOC: New family current-awareness alert (SDI) available
NEWS 10 SEP 01 New pricing for the Save Answers for SciFinder Wizard within
STN Express with Discover!
NEWS 11 SEP 01 New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS 12 SEP 14 STN Patent Forum to be held October 13, 2004, in Iselin, NJ
NEWS 13 SEP 27 STANDARDS will no longer be available on STN
NEWS 14 SEP 27 SWETSCAN will no longer be available on STN

NEWS EXPRESS JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 11:59:00 ON 18 OCT 2004

=> fil .eliz

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'MEDLINE' ENTERED AT 11:59:11 ON 18 OCT 2004

FILE 'SCISEARCH' ENTERED AT 11:59:11 ON 18 OCT 2004
Copyright (c) 2004 The Thomson Corporation.

FILE 'LIFESCI' ENTERED AT 11:59:11 ON 18 OCT 2004
COPYRIGHT (C) 2004 Cambridge Scientific Abstracts (CSA)

FILE 'BIOTECHDS' ENTERED AT 11:59:11 ON 18 OCT 2004
COPYRIGHT (C) 2004 THE THOMSON CORPORATION

FILE 'BIOSIS' ENTERED AT 11:59:11 ON 18 OCT 2004
Copyright (c) 2004 The Thomson Corporation.

FILE 'EMBASE' ENTERED AT 11:59:11 ON 18 OCT 2004
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

FILE 'HCAPLUS' ENTERED AT 11:59:11 ON 18 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'NTIS' ENTERED AT 11:59:11 ON 18 OCT 2004
Compiled and distributed by the NTIS, U.S. Department of Commerce.
It contains copyrighted material.
All rights reserved. (2004)

FILE 'ESBIOBASE' ENTERED AT 11:59:11 ON 18 OCT 2004
COPYRIGHT (C) 2004 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'BIOTECHNO' ENTERED AT 11:59:11 ON 18 OCT 2004
COPYRIGHT (C) 2004 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'WPIDS' ENTERED AT 11:59:11 ON 18 OCT 2004
COPYRIGHT (C) 2004 THE THOMSON CORPORATION

=> s cytochrome (5a) oxidase
L1 92991 CYTOCHROME (5A) OXIDASE

=> s l1 (5a) gluconobacter
L2 7 L1 (5A) GLUCONOBACTER

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3 6 DUP REM L2 (1 DUPLICATE REMOVED)

=> d 1-6

L3 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AN 2001:396517 HCAPLUS
DN 135:16027
TI Cloning of ***cytochrome*** c ***oxidase*** complex from
Gluconobacter oxydans and use of the recombinant enzyme for
fermentation of 2-keto-L-gluconic acid
IN Asakura, Akira; Hoshino, Tatsuo; Shinjoh, Masako
PA F. Hoffmann-La Roche A.-G., Switz.
SO Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1103603	A2	20010530	EP 2000-124785	20001114
	EP 1103603	A3	20020918		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	NO 2000005799	A	20010518	NO 2000-5799	20001116
	CA 2324414	AA	20010517	CA 2000-2324414	20001117
	JP 2001169792	A2	20010626	JP 2000-351502	20001117
	BR 2000005443	A	20010703	BR 2000-5443	20001117
	CN 1303928	A	20010718	CN 2000-138047	20001117
PRAI	EP 1999-122842	A	19991117		

L3 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:577887 HCAPLUS
DN 115:177887
TI Reconstitution of the ethanol oxidase respiratory chain in membranes of
quinoprotein alcohol dehydrogenase-deficient Gluconobacter suboxydans
subsp. alpha. strains
AU Matsushita, Kazunobu; Nagatani, Youichiro; Shinagawa, Emiko; Adachi, Osao;
Ameyama, Minoru
CS Fac. Agric., Yamaguchi Univ., Yamaguchi, 753, Japan
SO Journal of Bacteriology (1991), 173(11), 3440-5
CODEN: JOBAAY; ISSN: 0021-9193
DT Journal
LA English

L3 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1989:188379 HCAPLUS
DN 110:188379
VI Reactivity with ubiquinone of quinoprotein D-glucose dehydrogenase from
Gluconobacter suboxydans
AU Matsushita, Kazunobu; Shinagawa, Emiko; Adachi, Osao; Ameyama, Minoru
CS Fac. Agric., Yamaguchi Univ., Yamaguchi, 753, Japan
SO Journal of Biochemistry (Tokyo, Japan) (1989), 105(4), 633-7
CODEN: JOBIAO; ISSN: 0021-924X
DT Journal
LA English

L3 ANSWER 4 OF 6 LIFESCI COPYRIGHT 2004 CSA on STN
AN 87:51944 LIFESCI
TI Purification, characterization and reconstitution of ***cytochrome***
o-type ***oxidase*** from ***Gluconobacter*** suboxydans .
AU Matsushita, K.; Shinagawa, E.; Adachi, O.; Ameyama, M.
CS Dep. Agric. Chem., Fac. Agric., Yamaguchi Univ., Yamaguchi 753, Japan
SO BIOCHIM. BIOPHYS. ACTA., (1987) vol. 394, no. 2, pp. 305-312.
DT Journal
FS J; L
LA English
SL English

L3 ANSWER 5 OF 6 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on
STN
AN 87:661700 SCISEARCH
GA The Genuine Article (R) Number: K9925
TI PURIFICATION, CHARACTERIZATION AND RECONSTITUTION OF ***CYTOCHROME***
O-TYPE ***OXIDASE*** FROM ***GLUCONOBACTER*** -SUBOXYDANS
AU MATSUSHITA K; SHINAGAWA E; ADACHI O; AMEYAMA M (Reprint)
CS YAMAGUCHI UNIV, FAC AGR, DEPT AGR CHEM, YAMAGUCHI 753, JAPAN
CYA JAPAN
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1987) Vol. 894, No. 2, pp. 304-312.
DT Article; Journal
FS LIFE
LA ENGLISH
REC Reference Count: 23

L3 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1988:33944 HCAPLUS
DN 108:33944
TI Purification, characterization and reconstitution of ***cytochrome***
o-type ***oxidase*** from ***Gluconobacter*** suboxydans
AU Matsushita, Kazunobu; Shinagawa, Emiko; Adachi, Osao; Ameyama, Minoru
CS Fac. Agric., Yamaguchi Univ., Yamaguchi, 753, Japan
SO Biochimica et Biophysica Acta (1987), 894(2), 304-12
CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English

=> d 2-6 ab

L3 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
AB The ethanol oxidase respiratory chain of G. suboxydans was characterized
by using G. suboxydans subsp. .alpha., a variant species of G. suboxydans
incapable of oxidizing ethanol. The membranes of G. suboxydans subsp.
.alpha. exhibited neither alc. dehydrogenase, ethanol oxidase, nor
glucose-ferricyanide oxidoreductase activity. Furthermore, the
respiratory chain of the organism exhibited an extremely diminished amt.
of cytochrome c and an increased sensitivity of the respiratory activity
to cyanide or azide when compared with G. suboxydans. The first subunit,
quinohemoprotein dehydrogenase, and the second subunit, cytochrome c, of
the alc. dehydrogenase complex in the membranes of G. suboxydans subsp.
.alpha. were reduced and deficient, resp. Ethanol oxidase activity,
lacking in G. suboxydans subsp. .alpha., was entirely restored by
reconstituting alc. dehydrogenase purified from G. suboxydans to the
membranes of G. suboxydans subsp. .alpha.; this also led to restoration of
the cyanide or azide insensitivity and the glucose-ferricyanide
oxidoreductase activity in the respiratory chain without affecting other
respiratory activities such as glucose and sorbitol oxidases. Ethanol
oxidase activity was also reconstituted with only the cytochrome c of the
enzyme complex. Thus the cytochrome c of the alc. dehydrogenase complex
is essential in ethanol oxidase respiratory chain and may be involved in

the cyanide- or azide-insensitive respiratory chain bypass of G. suboxydans.

L3 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
AB Glucose dehydrogenase of G. suboxydans reacted directly with ubiquinone. The enzyme purified from the membranes of G. suboxydans reacted with ubiquinone homologs such as ubiquinone-1, -2, or -6 in detergent soln. Reactivity of the enzyme with native ubiquinone, ubiquinone-10, was demonstrated in a membranous environment. Dehydrogenase was reconstituted together with cytochrome o, the terminal oxidase of the respiratory chain, into a phospholipid bilayer contg. ubiquinone-10. The proteoliposomes thus reconstituted exhibited a reasonable glucose oxidase activity, the electron transfer reaction of which was able to generate a membrane potential and a pH gradient. Thus, D-glucose dehydrogenase of G. suboxydans donated electrons directly to ubiquinone in the respiratory chain.

L3 ANSWER 4 OF 6 LIFESCI COPYRIGHT 2004 CSA on STN
AB The ***Gluconobacter*** suboxydans respiratory chain has a ***cytochrome*** o as a terminal ***oxidase***. The cytochrome o-type oxidase was solubilized with octyl glucoside after washing the membranes with Triton X-100, and was purified by one-step ion-exchange chromatography. The purified oxidase contains four polypeptides, two b-type cytochromes (b-558 and b-562, and 2 mol of heme/mol of enzyme. The generation of membrane potential and pH gradient was determined by fluorometric methods using carbocyanine and dansylglycine, respectively. Thus, cytochrome o of G. suboxydans was shown to be an ubiquinol oxidase functioning as an energy-generator.

L3 ANSWER 5 OF 6 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on STN

L3 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
AB The G. suboxydans respiratory chain has a cytochrome o as a terminal oxidase. The cytochrome o-type oxidase was solubilized with octyl glucoside after washing the membranes with Triton X-100, and was purified by 1-step ion-exchange chromatog. The purified oxidase contains 4 polypeptides, 2 b-type cytochromes (b588 and b532), and 2 mol of heme/mol of enzyme. The oxidase was shown to be a typical cytochrome o and to have 2 CO-binding sites in the mol. The enzyme catalyzes the oxidn. of ubiquinol, and the activity is inhibited with KCN or quinone analogs. The purified cytochrome o can be reconstituted with phospholipids prepd. from G. suboxydans into proteoliposomes by octyl glucoside diln. The proteoliposome generates a proton electrochem. gradient (inside neg. and alk.) of about -140 mV during ubiquinol oxidn. The generation of membrane potential and pH gradient was detd. by fluorometric methods using carbocyanine and dansylglycine, resp. Thus, cytochrome o of G. suboxydans was shown to be an ubiquinol oxidase functioning as an energy-generator.

=> dis his

(FILE 'HOME' ENTERED AT 11:59:00 ON 18 OCT 2004)

FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIODBASE, BIOTECHNO, WPIDS' ENTERED AT 11:59:11 ON 18 OCT 2004

L1 92991 S CYTOCHROME (5A) OXIDASE
L2 7 S L1 (5A) GLUCONOBACTER
L3 6 DUP REM L2 (1 DUPLICATE REMOVED)

=> log h

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	32.11	32.32
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.10	-2.10

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 12:02:13 ON 18 OCT 2004